A. THE WIDEBAND TEST SYSTEM CHARGE SHOULD BE OPTIONAL.

Q. PLEASE DESCRIBE THE COST BASIS FOR THE LOOP TESTING CHARGE THAT VERIZON PROPOSES TO IMPOSE ON COMPETITORS THAT REQUEST LINE-SHARING LOOPS.

A. Verizon has proposed a monthly recurring price of $2.19 per line for line-sharing/line-splitting arrangements. Verizon intends the Wideband Test System ("WTS") charge to recover the cost of Metallic Test Access Units ("MTAUs"), Wideband Test Heads and supporting OSS for a new testing system provided by Hekimian.[89] According to a copy of the cost analysis and business case assessment on which Verizon apparently relied in determining to purchase the Hekimian wideband testing system, Verizon purchased this system to reduce ***BEGIN VERIZON PROPRIETARY ********* ******* **** ******** ********* ************ ********** ************ *********** **** ************** ****************** ***************** ******** *** ************[90] *********** **************** **************** ******* *************** **************** ******************** ************ **************** ********* ******************** **************

[89] Verizon Cost Panel Direct at 152.

[90] Attachment to Verizon-New York's Response to RLI-BA-149 in NYPSC Case 98-C-1357, Network Planning Deployment Plan, NP-DP-99-155, at Section 2.0, page 1.

** *** **[91] ** **[92] **END VERIZON PROPRIETARY*****

Q. IS VERIZON'S COST ANALYSIS AND ITS PROPOSAL TO REQUIRE COMPETITORS TO PAY A MONTHLY RECURRING CHARGE FOR THE HEKIMIAN SYSTEM REASONABLE?

A. No. Verizon has provided no justification for recovering the costs of such a system from competitors, nor has it provided substantiation for its claim that the system will produce savings relative to line-shared loops. In fact, the New York Public Service Commission ("New York Commission") found that Verizon VA's sister company, Verizon New York, "ha[d] not proven to what extent the number of [service] dispatches would be increased in connection with line sharing arrangements without the [system]."[93]

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91 *Id.* at Section 2.0, page 7.

92 *Id.* at Section 2.0, page 1.

93 New York Public Service Commission, *Opinion and Order Concerning Lines Sharing Rates*, Opinion No. 00-07, Case 98-C-1357. *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, (May 26, 2000), at 26.

More troubling is Verizon's proposal to recover the costs for this system from *all* competitors purchasing line-sharing arrangements—something the New York Commission also disallowed—the system was intended to provide Verizon's *retail* operations with the same testing capability that many competitors already provide for themselves.

In other words, Verizon proposes to force competitors to bear the cost of duplicative testing capabilities. Moreover, although Verizon wants competitors to pay a proportionate share of the cost of its retail testing system, as far as we know, Verizon has not yet agreed to allow competitors direct access to the test head or direct access to the system and the results of its testing capabilities.[94] Verizon's Cost Panel states simply that information regarding the results of the test will be provided to competitors "upon request."[95]

For these reasons, the Commission should require competitors to pay for access to Verizon's wideband testing capability *only* if they choose to use that system and *only* if Verizon provides full access to that system. Even if a carrier chooses to share Verizon's WTS, the Commission should clarify that Verizon will be deemed to have provided access to WTS only when it has established methods and procedures, provided technical specifications, and arranged for full access to

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[94] *See, e.g.*, Verizon New Jersey's Response to Covad Request 1-42, New Jersey BPU Docket No. TO00060356. *See,* also, Verizon Maryland's Response to Covad Data Request No. 1, questions 13 and 14, Maryland PSC Case 8842.

[95] Verizon Cost Panel Direct at 152 at fn 32.

WTS by the requesting carrier. Moreover, as we discuss below, the Commission should also reduce Verizon's reported cost for wideband testing to correct a substantial error in Verizon's analysis.

Q. IS THE CAPABILITY PROVIDED IN THE WIDEBAND TEST SYSTEM NECESSARY TO THE PROVISIONING OF LINE-SHARED LOOPS AS VERIZON'S COST PANEL SUGGESTS[96]?

A. No. Although the capability of performing testing is necessary, Verizon's provision of this capability through the WTS is not. In particular, wideband testing is unnecessary for carriers that plan to deploy their own testing systems in the context of purchasing line-shared loops, which they are entitled to do under the Commission's regulations.[97]

Verizon asserts that it needs the WTS because it will not have access to competitors' testing systems and results.[98] It is entirely unclear why Verizon believes that it needs or should be allowed test access to a competitor's portion of the shared loop. The Commission explicitly addressed this issue in its *Line Sharing Order*:

> Verizon also states that it will not be able to use its own equipment to test the data portion of the shared line, making Verizon's ability to maintain those competitors' xDSL services "more difficult." The

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[96] Verizon Cost Panel Direct at 151.

[97] *See* 47 C.F.R. § 51.319(h)(7) (requiring incumbent LECs to permit purchasers of line sharing to provide their own testing systems).

[98] Verizon Cost Panel Direct at 151-152.

> record does not indicate, nor do we foresee, that incumbent LECs such as Verizon would have occasion to test a competitive LEC's xDSL equipment or products. The quality of the service that a competitive LEC provides to its customer is not the incumbent's responsibility, so long as the incumbent is providing sufficient quality of service to the requesting carrier. We agree with commenters that if they are provided with access to the high frequency portion of the loop that is of sufficient quality, competitive LECs have ample capability and incentive to ensure the quality of the services they offer to their customers, and the performance of their own equipment.[99]

Moreover, because competitors will not need to test each and every loop, testing may be a relatively rare event. Even to the extent that it does not duplicate a given competitor's own testing capability, the WTS may not be a cost-effective solution for the sort of occasional testing that competitors will likely require, because the testing system that Verizon selected provides Verizon with significantly more functionality than individual advanced services competitors might require.

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[99] *Line Sharing Order* at ¶ 123.

Q. PLEASE EXPLAIN HOW THE WTS PROVIDES VERIZON WITH FUNCTIONALITY THAT COMPETITORS DO NOT REQUIRE.

A. In addition to testing the wideband (or high-bandwidth) portion of loops, the WTS can also be used to test the retail services being carried over the entire loop.[100] Verizon stated in Maryland that:

> [t]he Hekimian test system includes a variety of functionalities. Some of them are indeed related to retail-level testing, which is not surprising considering that the contract was negotiated at a time when Verizon expected to be a retail service provider.[101]

Although Verizon may desire this robust testing capability for its own retail services, imposing that cost on competitors purchasing stand-alone or line-shared DSL-capable loops is inappropriate. Moreover, Verizon has not identified the retail services with which it would use the WTS. Verizon cannot claim to have properly assigned WTS costs without identifying all of the services that Verizon will test with WTS.

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100 For example, among the data that Verizon has suggested its WTS could provide to competitors on request are "POTS supervision" and "Dial Tone" testing—aspects of service that are irrelevant to the provision of advanced services based on DSL technology. Verizon Cost Panel Direct at 150.

101 Verizon Panel Rebuttal Testimony, Public Service Commission of Maryland Case 8842, at 49.

Q. DOES VERIZON NEED ITS PROPOSED WIDEBAND TESTING CAPABILITY IN ITS CAPACITY AS A WHOLESALER WITH RESPONSIBILITY FOR PROVIDING QUALITY WHOLESALE SERVICE?

A. No. Any claim that Verizon designed its proposed testing system to enhance the service quality of line-shared loops provided to unaffiliated competitors is groundless. The record will show here, as it showed in the New York[102] and Maryland line sharing proceedings, that Verizon's original purpose in deploying a WTS was to improve its retail DSL services.

Verizon witness John White (a member of Verizon's Cost Panel here) testified in Maryland that the cost analysis and business case assessment on which Verizon apparently relied in determining to purchase the Hekimian wideband testing system[103] "was a retail study" and that it "didn't separately detail wholesale requirements versus retail requirements" because it was conducted "before there was a creation of the separate data affiliate designed, before line sharing."[104] Verizon has asserted that this network planning document, which it relied upon to decide to purchase the WTS, is no longer relevant to a determination of the costs and benefits of a WTS to a wholesale provider.[105] Quite the contrary, it is in large part because Verizon's business case study for

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102 *NYPSC Line Sharing Order* at 22-23.

103 Network Planning Deployment Plan, NP-DP-99-155.

104 Public Service Commission of Maryland Case 8842, Tr. at 750, lines 9-17.

wideband testing was made entirely independent of Verizon's potential role as a wholesale provider that the network planning document is relevant. Verizon's claims that it now needs the testing system to provide quality wholesale service are entirely unsubstantiated.

Moreover, Mr. White also testified that Verizon's cost analysis concluded that the system would pay for itself when implemented for Verizon retail service.[106] This suggest that Verizon should instead have modeled the forward-looking effect of its testing system investment as a decrease in costs relative to the current level of expenses that Verizon has already built into its "forward-looking" analysis, rather than as an increased cost to competitors. Verizon has not done so in this case, nor has Verizon justified treating the cost of its WTS differently from any of the other testing-related costs recovered through expense loadings in the company's "forward-looking" cost studies.

Q. HAVE STATE COMMISSIONS RULED THAT THE WTS CHARGE SHOULD BE OPTIONAL?

A. Yes. In a decision issued May 26, 2000, the New York Commission agreed that competitors should not have to pay for a capability they can provide for

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105 *See, e.g.,* Verizon-Massachusetts Initial Brief, Massachusetts D.T.E. 98-57, Phase III, at 61.

106 Public Service Commission of Maryland Case 8842, Tr. at 750, lines 9-17.

themselves and allowed competitors the choice of opting for Verizon-New York's Wideband Testing. According to the New York Commission:

> The FCC has authorized CLECs to deploy their own testing systems, and those wishing to do so should not be required to pay for ILEC-provided testing services they do not wish to purchase.[107]

The Massachusetts Department and the Maryland Commission resolved this issue in similar fashion. The Massachusetts Department agreed with competitors that Verizon's WTS should be made optional *and* where used, the competitor should have access to both the test results and the testing element itself. Not only were competitors to be given access to test capabilities and results, but competitors were to have immediate, electronic access.[108] Likewise, the Maryland Commission found that "the WTS shall be an optional service that the CLECs may choose to utilize,"[109] and required that "in those instances where a CLEC has chosen to utilize Verizon's WTS system, then Verizon must provide CLEC's with the test results and data for the whole frequency range."[110]

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[107] New York Public Service Commission, *Opinion and Order Concerning Line Sharing Rates ("NYPSC Line Sharing Order")*, Case 98-C-1357, Opinion No. 090-07, issued May 26, 2000, at 25-26.

[108] Order, *Investigation by the Department on its own motion as to the propriety of the rates and charges set for in M.D.T.E. No. 17*, D.T.E. 98-57-Phase III at 80 (Sept. 29, 2000) ("*Massachusetts Order*") at 80.

[109] Public Service Commission of Maryland Order 76852 at 21.

[110] *Id.* at 22.

Q. IS VERIZON CORRECT WHEN IT ARGUES THAT WTS IS EFFICIENT BECAUSE IT WILL REDUCE THE NUMBER OF DISPATCHES?

A. No. Both the New York Commission and Massachusetts Department found that competitors, not Verizon, will bear the consequences of their decisions to opt out of Verizon's WTS in terms of the costs of increased dispatch.[111] For example, the Massachusetts Department found that "CLECs are capable of performing their own cost-benefit analysis to determine whether they should ask Verizon to install an MTAU on their shared loops or whether they should forego Verizon's WTS at the possible risk of increased dispatches in the event of trouble on the line."[112] In fact, the Massachusetts Department found that Verizon's claims regarding any difference in dispatch rate whatever with and without WTS were not compelling. The Massachusetts Department agreed with competitors "that, unless Verizon can demonstrate that the dispatch rate for CLEC-provided xDSL service is comparable to the dispatch rate for Verizon's retail xDSL service, it would be inappropriate to factor the latter dispatch rate into the WTS charge."[113]

This Commission should also reject any claim that Verizon will bear any unnecessary burden due to the absence of mandatory WTS. The correct outcome is to let the market—in particular, the choices of market participants—decide whether Verizon's WTS is cost effective for competitors. For the market to do its

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[111] *NYPSC Line Sharing Order* at 26.

[112] *Massachusetts Order* at 76.

job, the Commission must rule, as have regulators in New York, Massachusetts, and Maryland, that Verizon's WTS charge must be an *optional one*. Moreover, for competitors that do opt to use WTS, the Commission must also require Verizon to provide competitors with direct access to the test head or to test results to make the WTS option meaningful.

Q. IS VERIZON'S REPORTED COST FOR WIDEBAND TEST SYSTEM AN ACCURATE REPRESENTATION OF FORWARD-LOOKING OR EFFICIENT COSTS?

A. No. Far from being forward-looking and efficient, the largest component of the WTS charge, the MTAU, is simply a temporary stopgap deployed to solve a problem with a supplier. In particular, Verizon originally ordered DSLAMs with *integrated* metallic test access from Alcatel;[114] but Alcatel failed to deliver the DSLAMs with the integrated metallic test access. Alcatel's failure led Verizon to deploy the separate WTS MTAUs for its retail Infospeed™ offering as a fix.[115]

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113 *Id.* at 109.

114 *See* Verizon-Massachusetts, Panel Rebuttal Testimony, at 58, Massachusetts D.T.E. 98-57, Phase III, July 19, 2000, also Initial Brief of Rhythms Links Inc., Aug. 18, 2000, at 74.

115 *****VERIZON PROPRIETARY **END VERIZON PROPRIETARY***** *See* Attachment to Verizon New York's Response to RLI-BA-134, (NP-DP-99-155) at 1, emphasis added.

Alcatel has paid Verizon an $11.2 million refund to compensate for its failure to deliver the promised DSLAMs.[116]

Verizon has stated that ***BEGIN VERIZON PROPRIETARY ****** ********************************* ****************** ****** ************************** ****************************** ***** **************************** ********************************** ***[117] **************** ** ************************* ******************************END VERIZON PROPRIETARY*** Significantly, the MTAU accounts for ***BEGIN VERIZON PROPRIETARY *********END VERIZON PROPRIETARY*** of Verizon's reported cost. Given that ***BEGIN VERIZON PROPRIETARY*** ********* *** ************* END VERIZON PROPRIETARY*** the Commission should eliminate the cost for it entirely. That correction, along with corrections to Verizon's factors discussed by AT&T/WorldCom's Recurring Cost Panel in its rebuttal testimony, would reduce Verizon's reported cost to $0.55.

Elsewhere, Verizon has argued that the Alcatel refund (relating to "Alcatel's failure to build the functionality of the actual test head (MTAU) into

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116 *See id.*

each Alcatel DSLAM") "has nothing to do with the costs for testing to provide the wholesale service via the Heikmian [sic] system, as reflected in [Verizon's] cost studies" since "CLECs would be providing their own DSLAMs."[118] Verizon's argument is fallacious. The Alcatel refund has everything to do with the costs for testing that Verizon proposes to recover from competitors through the mandatory wideband test charge. The MTAU costs that were directly offset by the Alcatel refund are included in Verizon's cost study and used in the development of the price Verizon proposes to charge competitors for the WTS.[119] That competitors will be providing their own DSLAMs, and will incur their own testing costs in connection with those DSLAMs, only serves to highlight the inappropriateness of burdening competitors with excessive wideband testing costs and the importance of properly offsetting those costs to account for the Alcatel refund received by Verizon.

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117 *See id.* at 1.

118 Verizon-Massachusetts Initial Brief, Massachusetts D.T.E 98-57, Phase III, at 61.

119 Verizon Exhibit Part B-13.

B. THE COMMISSION SHOULD HOLD VERIZON TO A STRICT BURDEN OF PROOF IN JUSTIFYING RECOVERY CLAIMS FOR MODIFICATIONS TO ITS OSS IN CONNECTION WITH LINE SHARING.

Q. WHAT LINE SHARING OSS CHARGE HAS VERIZON PROPOSED?

A. Verizon has proposed to charge each line sharing or line splitting arrangement and additional $0.84 per line per month for the one-time development costs and on-going maintenance costs of developing the OSS software for line sharing.[120]

Q. HAS VERIZON SUPPLIED ENOUGH INFORMATION TO EVALUATE THE APPROPRIATENESS OF ITS CLAIMED LINE SHARING OSS COSTS?

A. No. As with its access to OSS costs, the information provided by Verizon is insufficient to determine the appropriateness of its cost estimate. Verizon has not even provided any information on the scope of the proposed development. Furthermore, Verizon has provided no support for its levelized demand projection for line sharing and line splitting arrangements, which inexplicably differs from the demand projection Verizon used in its WTS calculations.

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120 Verizon Cost Panel Direct at 146-147. Apparently, Verizon would apply this charge to its data affiliate's line sharing arrangements as well as competitors'. However, Verizon has not indicated the level of Verizon Advanced Data demand included in its projections, as opposed to demand from unaffiliated data providers.

Q. ARE THERE ANY OTHER PROBLEMS WITH VERIZON'S ESTIMATED LINE SHARING OSS COSTS?

A. Yes. First, as with the access to OSS costs discussed above, Verizon has included a markup for annual ongoing software maintenance. As AT&T/WorldCom's Recurring Cost Panel explains in detail in its concurrently filed rebuttal testimony, Verizon already recovers such costs through its recurring cost factors. It is more appropriate to treat these software maintenance costs as regular costs of business and recover them just as Verizon does other ongoing OSS costs. Verizon itself admits that it does not track on-going maintenance costs for OSS projects separately.[121] And, as also explained in the AT&T/WorldCom Recurring Cost Panel Rebuttal, Verizon's estimate of these purported annual on-going costs is suspect. It is estimated as a percentage of the (unsubstantiated) one-time costs, which is probably itself inflated. For all of these reasons, it is more appropriate to recover such ongoing costs, to the extent they exist, through Verizon's recurring cost factors.

Second, Verizon has inexplicably chosen to spread the one-time development costs over five years instead of the ten-year recovery period it proposed for access to OSS costs. We see no reason to recover the line sharing costs over a different period of time. For its access to OSS charge Verizon "proposed a 10-year recovery period beginning in 2001, in order to mitigate the

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[121] Verizon Cost Panel Direct at 276.

impact on competing carriers and spread the costs among a relatively large number of CLECs."[122] That logic applies equally to line sharing OSS.

Q. WHAT IS YOUR RECOMMENDATION REGARDING VERIZON'S PROPOSED LINE SHARING OSS CHARGE?

A. Although the Commission's *Line Sharing Order* indicates that it may be appropriate to allow incumbents to recover costs for modifications to its OSS to accommodate line sharing, the Commission proposed a test for the validity of any recovery claims.

Specifically, paragraph 106 of that order states:

> We expect that incumbent LECs may decide to develop new OSSs to accommodate their inventory needs as their product and service offerings increase, or to seek increased OSS efficiency. We find, however, that further incumbent LEC OSS development is not likely to be solely driven by unbundling requirements. Consequently, we urge the state commissions not to permit incumbent LECs to delay the availability of access to the high frequency portion of the loop while they implement automated OSS solutions, *nor will we permit incumbent LECs to attribute an unreasonable portion of their OSS development costs to our spectrum unbundling requirements*. (Emphasis added, footnote omitted.)

To meet the Commission's proposed test for the validity of any recovery claims, Verizon would have to provide a detailed evidentiary basis on which interested parties and the Commission could determine whether any OSS upgrades or

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[122] Verizon Cost Panel Direct at 252.

modifications were necessary and forward-looking and the extent to which they will benefit Verizon's own operations (or those of its affiliates), as opposed to being required solely for the provisioning of line sharing for unaffiliated competitors.[123] Consistent with its own guidelines, the Commission should hold Verizon to a strict burden of proof in justifying recovery claims for modifications to Verizon's OSS in connection with line sharing. We do not believe that Verizon has met this burden. Therefore, we recommend that Commission reject Verizon's proposed charge unless and until it has provided the necessary documentation.

If the Commission should decide to make use of Verizon's proposed cost study for line sharing OSS, we recommend that the Commission direct Verizon to remove the software maintenance costs and to spread the one-time costs over ten years. These modifications, along with corrections to Verizon's factors discussed by AT&T/WorldCom's Recurring Cost Panel in its rebuttal testimony, results in a charge of $0.54 per month per line.[124]

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123 *Line Sharing Order* at ¶ 106.

124 Because Verizon did not provide a projection of line sharing over ten years, or even the projection underlying its levelized demand projection (amortized over five years), we were not able to correctly calculate the levelized demand for ten years. Instead, we used Verizon's five year levelized demand as a proxy. This should tend to overstate the demand over which Verizon's proposed costs are spread.

C. VERIZON'S REPORTED PER-LINE AND ORDER RELATED COSTS ARE NOT REASONABLY RELATED TO LINE SHARING AND SHOULD BE REJECTED.

Q. IS VERIZON'S ESTIMATE OF THE NON-RECURRING COST FOR LINE SHARING ARRANGEMENTS REASONABLE?

A. No. In recent state proceedings, Verizon has typically not included any specific non-recurring cost analysis for line-sharing arrangements but instead has suggested that the non-recurring cost and price for a Two Wire New Initial UNE loop should apply to line-sharing arrangements. In response, Ms. Murray and Mr. Riolo noted that there is no reason to believe that the costs to install an entire loop would in any way parallel line-sharing costs.

In contrast to Verizon's prior attempt to force the round peg of (what it claims as) Two Wire New Initial UNE loop costs into the square hole of line sharing, our expectation is that if Verizon actually did a study of non-recurring cost for line sharing, it would discover that, with the exception of running an additional jumper, line-sharing costs somewhat less than a new UNE loop as line sharing always begins with an existing retail account and complete records for a existing customer and should only require the placement of a pair of jumpers in a Verizon central office.

Ironically, Verizon appears to have responded to those concerns by adding a separate entry into its study for line-sharing non-recurring costs that actually shows a *higher* total cost for line sharing than for a new UNE loop.

Q. DID VERIZON ACTUALLY STUDY THE NON-RECURRING COST TO IMPLEMENT A LINE-SHARING ARRANGEMENT, AS ITS STUDY OUTPUTS SEEM TO INDICATE?

A. No. With the exception of the fact that Verizon (inexplicably) uses a slightly lower forward-looking adjustment in the service order portion of its study for line sharing than for new UNE loops, the two studies are identical. The results that Verizon reports for line-sharing central office wiring also appear higher, but only because Verizon has added together the central office wiring cost for both a Two Wire New Initial UNE loop and Two Wire New Additional to create the Line Sharing Initial result.

Verizon's superficially modified approach compounds the problems inherent in its previous equation of line sharing with new UNE loop installation and creates two interlocking layers of error. First, all of the problems related to both the Two Wire New Initial UNE loop and Two Wire New Additional studies also affect the line-sharing non-recurring cost analysis and must be similarly corrected. If the Commission (inappropriately) makes any use of Verizon's reported costs, it should further reduce the cost applied to line sharing to account for the relative simplicity of line-sharing arrangement. Second, the Two Wire New Initial UNE loop and Two Wire New Additional study analysis that Verizon continues to apply contains numerous assumptions and resulting costs that are obviously irrelevant to a line-sharing arrangement.

Q. WHY ARE THE TWO WIRE NEW INITIAL UNE LOOP COSTS THAT VERIZON RELIES ON OBVIOUSLY INCORRECT AS A BASIS FOR LINE-SHARING COSTS?

A. Verizon's UNE loop analysis contains numerous elements that are blatantly irrelevant to the provision of line-sharing arrangements. Most prominently, Verizon reported the same field installation costs for line sharing and the Two Wire New Initial UNE loop. That result is plainly absurd even under Verizon's own assumptions regarding the application of non-recurring costs for outside plant loop activities. Line sharing *is not possible* unless Verizon already has a fully functional retail line in place. Hence, it is simply not possible for the work activity steps included in the field installation portion of the Verizon Two Wire New Initial UNE loop study such as "place intermediate field X-Conn and NI" to have any relevance whatever to line-sharing orders.

Even assuming that the Commission (incorrectly) found that Verizon's reported central office wiring costs are reliable for Two Wire New Initial UNE loops, they are unreasonable for line sharing. Roughly 40% of Verizon's total reported time for central office wiring appears to be related to time spent verifying that the order data is correct and resolving problems. Again, line sharing involves placing an additional feature *on an existing line that is already in service*. Hence, even if the Commission allows Verizon to build such poor performance standards into its assumptions about new loop connections, one would expect a substantially lower error rate once Verizon is working with existing loops (and whatever problems that did occur would be Verizon's own doing, for which it should bear the costs).

Likewise, the first activity listed in Verizon's analysis of the Service Order non-recurring charge is to "Receive Local Service Request (LSR) from CLEC and print, review type and confirm the order request for new installation and/or account." It is mysterious why Verizon believes this step will not be fully automated for line sharing, particularly given the line-sharing OSS charge that the company seeks to levy. It is also obvious that the basic context of analyzing a "request for new installation and/or account" is not appropriate for line sharing.

D. THE COMMISSION SHOULD ASSUME AN EFFICIENT, COST-MINIMIZING SPLITTER CONFIGURATION.

Q. WHEN CALCULATING COSTS FOR LINE-SHARING OPTIONS, WHAT ASSUMPTION SHOULD THE COMMISSION EMPLOY CONCERNING THE PLACEMENT OF THE SPLITTER IN VERIZON'S CENTRAL OFFICE?

A. The Commission should assume that Verizon places the splitter in an efficient, cost-minimizing location. Placement of splitters at or near the MDF is the most efficient configuration in terms of both minimizing costs and avoiding long tie-cable runs.[125] Therefore, the Commission should calculate costs based on the

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[125] In addition to raising costs, long tie-cable runs may needlessly preclude some end users from obtaining line-shared DSL-based services from a provider other than Verizon or its data affiliate, because xDSL services are distance sensitive. Each unnecessary tie cable adds to the total distance, reducing the pool of customers that will be eligible for a competitor's offering.

assumption that Verizon will place splitters at or near the MDF (unless the competitor requests that the splitter be placed in its collocation space). Verizon VA has assumed the less efficient placement of splitters on a relay rack rather than mounted on the frame.

Verizon could limit the conditions under which it allows efficient splitter placement in such a way that only its affiliates could qualify for this efficient configuration. The Commission should take steps to prevent Verizon from conferring any economic advantage on its affiliates by virtue of Verizon's unilateral control over the placement of splitters in its central offices.

If Verizon has decided that splitters must be placed in locations that necessitate the use of more tie cables or the placement and removal of more jumpers than would be necessary in an efficient MDF-mounted splitter configuration, Verizon should be deemed to be the "cost causer" of the increased number of tie cables and jumpers and should bear that cost, especially because competitors bear the risk of service disruptions caused by alternate splitter placement. Verizon always has the option of efficient placement of splitters serving unaffiliated competitors.

The Commission should order prices for cross-connections and tie cables that give Verizon the incentive to choose the efficient splitter placement option. Our pricing recommendation is consistent with the Commission's recent *Collocation Remand Order*. In that order, the Commission noted that:

> 92. An incumbent LEC, however, must assign space in accordance with the statutory requirement

> that it provide for physical collocation "on rates, terms, and conditions that are just, reasonable, and nondiscriminatory." We recognize that an incumbent LEC has powerful incentives that, left unchecked, may influence it to allocate space in a manner inconsistent with this statutory duty. We conclude that to meet the statutory standard, an incumbent LEC must act as a neutral property owner and manager, rather than as a direct competitor of the carrier requesting collocation, in assigning physical collocation space. To ensure that competitive concerns do not influence an incumbent LEC's space assignment decisions, we believe that we should enunciate principles that give more specific meaning to the incumbent's statutory duty to provide for physical collocation "on rates, terms, and conditions that are just, reasonable, and nondiscriminatory." Of course, state commissions should continue to play a primary role in resolving specific space assignment disputes.
>
> 93. First, we require that *an incumbent LEC's space assignment policies and practices must not materially increase a requesting carrier's collocation costs ....*[126]

As we demonstrate in the following sections, Verizon's failure to assume that the splitter is placed at or near the MDF has the effect of materially increasing the requesting carrier's cost to collocate its splitter; therefore, Verizon's splitter placement assumption does not result in costs that are consistent with the guidelines that the Commission enunciated in its *Collocation Remand Order*.

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[126] Fourth Report and Order in CC Docket No. 98-147, In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, adopted July 12, 2001, ("Collocation Remand Order") at ¶¶ 92-93, emphasis supplied.

E. VERIZON'S APPLICATION OF AN EF&I FACTOR TO CHARGES FOR LINE SHARING IS INAPPROPRIATE.

Q PLEASE EXPLAIN THE PROBLEM WITH VERIZON'S APPLICATION OF AN ENGINEER, FURNISH & INSTALL ("EF&I") FACTOR IN CONNECTION WITH CERTAIN LINE-SHARING RATE ELEMENTS.

A. Verizon applies EF&I factors to its projected material-only investment to develop an estimate of total installed investment.[127] Verizon assumes an EF&I factor for line-sharing elements that is not reasonably related to line sharing, thereby grossly inflating many of its proposed line-sharing prices, which are based on this estimate of installed investment.

Q. WHAT LINE-SHARING ELEMENTS ARE AFFECTED BY VERIZON'S INAPPROPRIATE APPLICATION OF THE EF&I FACTOR?

A. The line-sharing elements affected by the inappropriate application of the EF&I factor are the Splitter Installation non-recurring charge and the Administrative and Support and Splitter Equipment Support recurring charges.

Q. WHY IS THE EF&I FACTOR THAT VERIZON APPLIES TO LINE SHARING INAPPROPRIATE?

A. Verizon assigns an EF&I factor to costs of the splitter and splitter bay that is based on historic costs for the "Digital Circuit Equipment (Subscriber Pair Gain)" equipment account. Unlike digital circuit equipment like pair gain systems, however, splitters and splitter shelves are simple and passive devices. Splitters

[127] Verizon Cost Panel Direct at 43.

have no moving parts and are nothing more than a shelf into which splitter line cards are placed and cabling is attached. Thus, splitters bear little in common with sophisticated electronics equipment such as pair gain systems and cannot be assigned the same EF&I factor.

The EF&I factor that Verizon uses to develop total installed investment costs reflects the ratio of the company's total booked engineering and installation costs from 1998 to its booked 1998 costs for equipment[128] included in the Digital Circuit Equipment accounting category.[129] Verizon has not developed this factor in a manner that provides a reasonable estimate of the efficient, forward-looking investment related to line-sharing activities, because line-sharing activities and related equipment such as splitters were almost certainly not included in the 1998 costs reflected in the EF&I factor.[130] As the Public Service Commission of Maryland recently found, "the application of a factor-based methodology is most persuasive when the plant type used as a proxy is consistent with the plant type being priced."[131] One cannot simply presume, as Verizon has done, that an installation factor developed by analyzing a group of activities that were

[128] Verizon Cost Panel Direct at 43.

[129] Verizon Cost Panel Direct at 157. Verizon's EF&I for the digital circuit pair gain account is ***VERIZON PROPRIETARY****** ********* **** ***** ** ****** *********** **************** **END VERIZON PROPRIETARY*** of estimated investments.

[130] The factors are calculated using 1998 data; Verizon's ADSL offering was tariffed in September 1998. Therefore little, if any, line-sharing costs would have been included.

performed on equipment unrelated to line sharing—such as optical multiplexers—has any relevance at all to the efficient, forward-looking cost that Verizon will incur in connection with line-sharing installations. This conclusion would require an analysis of comparability and relevance of costs. Verizon does not appear to have performed such an analysis. Nor has Verizon provided an estimate of the time actually required to provision splitter shelves.

A direct estimate of the effort actually required to place splitters into operation, such as the one we provide below, confirms that Verizon's use of a historic, broad-gauge factor produces a wildly inflated result in this specific application.

Q. VERIZON'S COST PANEL ARGUES THAT THE ABSENCE OF LINE-SHARING FROM THE DEVELOPMENT OF THE EF&I IS NOT RELEVANT. IS THE PANEL CORRECT?

A. No. The application of the EF&I factor is only appropriately applied to services or elements whose cost experience is reflected or contemplated in the development of the factor. The factor approach is particularly inappropriate in the context of the new line-sharing functions because those activities did not contribute to Verizon's overall historic relationship between investment and installation costs. Moreover, by their very nature, the inclusion of these activities into Verizon's cost experience should lower the cost to investment ratio. Thus,

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[131] Public Service Commission of Maryland Order 76852 at 13-14.

the application of a company-wide factor in the derivation of line-sharing prices will produce higher prices than justified because those prices will not reflect, even on an average basis, the lower cost experience associated with line-sharing activities.

The panel's testimony presents circular reasoning. The Cost Panel states that "the absence of the expenses of installing splitters from the EF&I numerator given the base year likely has a far greater effect on the EF&I factor than the absence of the splitter material costs from the denominator," because "[t]he material costs are relatively low compared to the installation costs, and thus absence of the latter results in understatement of the factor, certainly not overstatement."[132] But that is exactly the assumption that Verizon has not proved or even, apparently, investigated. The Cost Panel's rationale rests wholly upon the unsubstantiated assumption that the digital circuitry EF&I factor is the appropriate comparison factor. The panel itself admits, "it is the relationship of the expenses and investments that existed at such time that make the factor relevant."[133] And yet, Verizon has shown no such relationship for line-sharing here.

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[132] Verizon Cost Panel Direct at 158.

[133] *Id.*

Q. IS THE ALTERNATIVE TO USE OF AN EF&I FACTOR INDIVIDUAL CASE BASIS PRICING, AS VERIZON SUGGESTS[134]?

A. No. The panel's argument here is truly baffling. It is entirely possible for Verizon to develop its non-recurring labor costs by multiplying the *average* labor time estimate for installing the cards by the relevant labor rate. Indeed, the bulk of Verizon's own proposed non-recurring costs and charges are based on a "bottom-up" assessment of tasks and task times. It is difficult to understand how Verizon can now say such an approach is not possible with respect to line-sharing elements.

F. VERIZON'S PROPOSED RECURRING LINE-SHARING "ADMIN & SUPPORT" PRICE IS OVERSTATED AND SHOULD NOT BE APPLIED TO "OPTION A."

Q. DO YOU AGREE WITH THE MANNER IN WHICH VERIZON PROPOSES TO APPLY THE LINE SHARING "ADMIN & SUPPORT" PRICE?

A. No. Verizon does not propose to purchase and provide actual splitters for competitors under either of its options.[135] Nonetheless, Verizon does propose a monthly recurring price of $27.69 (per 96-line shelf) for "Option A" arrangements, purportedly to capture the operating expenses for the administration

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134 *Id.* at 156.

135 Under "Option A" the competitor would purchase and install its own splitter in its collocation space. Under "Option C," the competitor would purchase the splitter, but it would be installed in Verizon's space.

and support of the competitor-owned and operated splitter.[136] Verizon proposes a $34.89 price (per 96-line shelf) for "Option C," which also includes maintenance and repair costs. It is entirely inappropriate to apply the "admin and support" factor to its "Option A." Indeed, Verizon has failed to demonstrate that it will in fact incur these administration and support costs for either "Option A" or "Option C" splitter arrangements.

Q. WHY IS IT INAPPROPRIATE TO CHARGE COMPETITORS FOR "ADMIN AND SUPPORT" UNDER "OPTION A" LINE-SHARING ARRANGEMENTS?

A. The recurring Line-Sharing "Admin & Support" charge proposed by Verizon is clearly not applicable in "Option A"—where the competitor owns and installs the splitter and maintains the splitter in the competitor's own collocation space. The factor that Verizon uses to develop this supposed cost is based on historic company costs for supporting equipment that Verizon owns, installs and manages in its own space to provide its own services. No part of the numerator or denominator in that calculation included equipment that a *competitor* owns, maintains, installs and manages. Hence, there is no basis whatever for concluding that any of the costs in the Verizon factor pertain to equipment in a competitor's collocation space. The Commission should reject any monthly recurring Verizon price related to "Option A."

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[136] Verizon Exhibit Part B-15, Section 3.1.

Verizon has claimed nonetheless that, in the "Option A" scenario, it should receive compensation to recover costs associated with its support staff who work with competitors (wholesale marketing),[137] "other support," [138] which consists of "support expenses such as information management, research and development, and procurement expenses, as well as the capital requirements associated with non-revenue producing investments in motor vehicles, special work equipment, land and buildings (excluding central office buildings), general purpose computers, furniture, and official communications and support equipment," [139] and common costs. Verizon has provided no support for its assertion that a competitor's decision to collocate a splitter causes Verizon to incur any of these types of cost.

Moreover, these purported costs duplicate costs that Verizon recovers from competitors through other charges. In the "Option A" configuration, the splitter is located in the competitor's collocation space. The competitor already pays Verizon a monthly recurring charge for collocation space, which recovers

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137 Remarkably, Verizon apparently believes its litigation of line-sharing issues to be a legitimate part of these administrative costs. In a recent Maryland proceeding on line sharing, Verizon witness Amy Stern responded to the question "Are the CLECs being charged for you to be here to litigate this issue today as part of a marketing expense?" by saying that "I view my job as kind of an overhead of doing business with CLECs. As such, I think the corporation is entitled to recover the cost of my salary and the other overheads related to doing business with CLECs." Public Service Commission of Maryland's Case 8842, Tr. at 725, lines 10-17.

138 Verizon Exhibit Part B-15, Section 3.1.

139 Verizon Cost Panel Direct at 64-65.

costs associated with the support of equipment placed in that area (including DC power, air conditioning, *etc.*).

There is no reason why the competitor should pay an additional charge merely because it collocates a splitter (as opposed to a DSLAM or any other piece of equipment). None of the costs for which the charge supposedly compensates Verizon (for example, motor vehicles and Research and Development) will change one iota based on the investment that Verizon competitors make in splitters, nor will that investment cause Verizon to incur any additional costs in those areas. Likewise, where Verizon does not incur a cost, its common overhead costs cannot be affected. Indeed, at no point has Verizon sought to charge competitors for maintenance of any other equipment they place in their own collocation spaces. The Commission should not permit Verizon to recover maintenance or other support costs based on the equipment that a competitor opts to place in its collocation space. Verizon can provide no basis whatever for singling out splitters for this unique additional cost recovery treatment when no other combination of collocated equipment results in such an additional charge. Even more to the point, a competitor's decision to place 1, 100 or 1,000 splitters in a collocation cage has no effect on Verizon's administrative and support costs.

Q. IS THERE AN ADDITIONAL PROBLEM WITH VERIZON'S PROPOSAL TO CHARGE ANY FACTOR-BASED AMOUNT FOR LINE SHARING "ADMIN & SUPPORT" IN "OPTION A"?

A. Yes. By inappropriately tying calculation of Verizon's costs to investment that a competitor makes for deployment in its own space, Verizon's proposal would